

Missing Mass Gas Lab

Home Work, Due 6 March

Data From "Missing Mass Gas Lab"
Post lab

Period 1	grams	Period 2	grams
Mass of crucible	7.15	Mass of crucible	7.20
Mass of Sucrose	1.02	Mass of Sucrose	1.11
Mass of KClO ₃	3.15	Mass of KClO ₃	3.14
Mass of Crucible and product	8.21	Mass of Crucible and product	8.18

Period 3	grams
Mass of crucible	7.11
Mass of Sucrose	1.08
Mass of KClO ₃	3.13
Mass of Crucible and product	8.43

Post-Lab Discussion Questions: (SHOW YOUR WORK,!)

1. What is the limiting reagent in reaction and why?
2. Was this what you expected? Is it more or less? Describe the outcome, what changed your results?
3. What was your percent yield for the solid collected (use your predicted mass of solid product for the theoretical mass)?
4. What was your percent yield for the gasses (you have two of them and they went into the atmosphere not your crucible)?
5. Was this what you expected? Is it more or less? Describe the outcome, what changed your results?
- 6-11, Optional for 2017 Pre-AP Chemistry
6. *What would be your limiting reagent if you had 100kg of sucrose and 98kg of potassium?*
7. *Rewrite and balance the formula, but replace potassium chlorate with sodium chlorate.*
8. *How many grams of sodium chlorate would you need to complete the reaction, using the Same quantity of sucrose? Is it more or less than the quantity you used in the original reaction? Explain Why!*
9. *How many grams of sucrose would you need to create 1.0 liter of water?*
10. *What was the total mass of the products vs. the total mass of the reactants? Add all of the masses of the compounds on each side of the equation.*
11. *How many grams of sucrose will you need to produce 1.0kg of potassium carbonate? What would be a way you could test for the carbonate ion?*

